

**REMARKS**

Claim 34 has been amended to add clarification and not in response to the rejection of claim 34 under 35 U.S.C. § 102(e).

The Examiner objected to the appearance two claims both numbered as claim 36, and the Examiner renumbered the second-appearing claim 36 as claim 43. Applicants accept the Examiner's renumbering of the second-appearing claim 36 as claim 43. Applicants have accordingly listed the second-appearing claim 36 as claim 43 immediately after claim 42.

The Examiner rejected claims 34-36 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Number 6,674,971 to Boggess *et al.*

The Examiner rejected claim 43 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Number 6,674,971 to Boggess *et al.*, in view of U.S. Patent Number 6,081,527 to Chappel *et al.*

The Examiner rejected claim 37 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Number 6,674,971 to Boggess *et al.*, in view of U.S. Patent Number 4,797,879 to Habbab *et al.*

The Examiner rejected claims 38-42 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Number 6,674,971 to Boggess *et al.*, in view of U.S. Patent Number 5,946,116 to Wu *et al.*

Applicants respectfully traverse the § 102 and § 103 rejections with the following arguments.

35 U.S.C. § 102(e)

The Examiner rejected claims 34-36 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Number 6,674,971 to Boggess *et al.*

Applicants respectfully contend that Boggess does not anticipate claim 34, because Boggess does not teach each and every feature of claim 34.

As a first example of why Boggess does not anticipate claim 34, Boggess does not teach the feature: "sending **an address** of a second core and **control signals** from a first core to a first optic controller" (emphasis added)..

The Examiner argues that in FIG. 6A of Boggess, the CPU 200 and the gate controller 210 respectively represent the first core and the first optic controller of claim 34.

In response Applicants respectfully contend that Boggess does not teach that the CPU 200 sends **an address** of a second core to the gate controller 210. To the contrary, Boggess teaches that a feature of Boggess' invention is that said address is not needed. See Boggess, col. 9, lines 46-48 ("A further object is a method of communicating on a network, wherein the step of passing through the optical data is done **without reading a destination address.** "). See also, Boggess, col. 10, lines 58-59 ("it is no longer necessary to include addressing information in data streams"). See also, Boggess, col. 15, lines 34-36 ("the addressing information is determined by the channel being used and not by the destination address information in the header").

In further response Applicants respectfully contend that Boggess does not teach that the CPU 200 sends **control signals** to the gate controller 210. The Examiner has not cited anything in Boggess to demonstrate that Boggess teaches that the CPU 200 sends control signals to the gate

controller 210.

As a second example of why Boggess does not anticipate claim 34, Boggess does not teach the feature: “wherein **an integrated circuit** comprises the first core, the first optic controller connected to the first core, a plurality of optical transmitters under control of the first optic controller, the second core, a second optic controller connected to the second core, a plurality of optical receivers under control of the second optic controller” (emphasis added).

The preceding language in claim 34 requires that an integrated circuit (i.e., a single integrated circuit) comprises the recited structure of the first core, the first optic controller, the second core, and the second optic controller.

The Examiner argues that Boggess teaches an integrated circuit comprising: the CPU 200 and gate controller 210 of a **first node** and the CPU 200 and gate controller 210 of a first node 205; and the CPU and gate controller of a **second node** (i.e., Node 2).

In response Applicants respectfully contend that in Boggess the different nodes each represent a different integrated circuit. See Boggess, col. 7, lines 19-21 (“In a preferred embodiment this receiver reserved channel system is fabricated using semiconductor technology to incorporate the components of a node on a **single IC**.”). See also, Boggess, col. 8, lines 25-28 (“An object of the invention is an optical data communications device fabricated as **an integrated circuit**, comprising an array having a plurality of transceivers arranged to form channels, wherein the transceivers are capable of transmitting and receiving optical data.”).

In addition, Boggess’ discussion of prior art describes disadvantages of using a single integrated circuit. For example, see Boggess, col. 2, lines 1-16 (“Due to IC packaging constraints,

there is a limited electronic I/O bandwidth. According to present manufacturing techniques, an IC package can have a maximum of approximately five hundred I/O pins due to problems associated with the connections between the IC substrate and the IC package. The ... maximum I/O bandwidth of a **single IC package** is directly proportional to the number of pins times the clock rate per pin. In general, the maximum I/O bandwidth of a packaged IC is typically in the tens of Gigabits/second.” (Emphasis added)).

In contrast, Boggess, col. 10, lines 63-67 teaches that for Boggess’ invention: “the complexity of the control is greatly reduced as are the number of pins required to get data on and off chip. That is, the input-output (I/O) function is distributed **across many integrated circuits** rather than trying to build one large central IC switch.” (emphasis added). Applicants maintain that Boggess does not anywhere teach that one integrated circuit comprises the different nodes.

As a third example of why Boggess does not anticipate claim 34, Boggess does not teach the feature: “decoding, by the first optic controller, the address” of the second core.

As explained *supra* in conjunction with said first example, Boggess does not teach that the gate controller 210 (alleged by Examiner to represent the first optic controller of claim 34) ever receives the address of the second core. In addition, Boggess, col. 10, lines 34-36 recites: “there is **no need to decode headers** before making a decision to pass the data on or not.” (emphasis added).

Based on the preceding arguments, Applicants respectfully maintain that Boggess does not anticipate claim 34, and that claim 34 is in condition for allowance. Since claims 35-36 depend

from claim 34, Applicants contend that claims 35-36 are likewise in condition for allowance.

35 U.S.C. § 103(a)

The Examiner rejected claim 43 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Number 6,674,971 to Boggess *et al.*, in view of U.S. Patent Number 6,081,527 to Chappel *et al.*

Since claim 43 depends from claim 34, which Applicants have argued *supra* to not be not unpatentable over Boggess under 35 U.S.C. §102(b), Applicants maintain that claim 43 is likewise not unpatentable over Boggess in view of Chappel under 35 U.S.C. §103(a).

The Examiner rejected claim 37 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Number 6,674,971 to Boggess *et al.*, in view of U.S. Patent Number 4,797,879 to Habbab *et al.*

Since claim 37 depends from claim 34, which Applicants have argued *supra* to not be not unpatentable over Boggess under 35 U.S.C. §102(b), Applicants maintain that claim 37 is likewise not unpatentable over Boggess in view of Habbab under 35 U.S.C. §103(a).

The Examiner rejected claims 38-42 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Number 6,674,971 to Boggess *et al.*, in view of U.S. Patent Number 5,946,116 to Wu *et al.*

Since claims 38-42 depend from claim 34, which Applicants have argued *supra* to not be not unpatentable over Boggess under 35 U.S.C. §102(b), Applicants maintain that claims 38-42 are likewise not unpatentable over Boggess in view of Wu under 35 U.S.C. §103(a).

**CONCLUSION**

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0456.

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